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DEVELOPMENT AND NUTRITIONAL EVALUATION OF ALMOND–OAT BISCUITS

Dorca Roxana Elisa[1], Bidileci Alberta Maria[1], Oprișor Patricia-Adina[1], Stoin Daniela[1], Velciov Ariana – Bianca[1*]

[1]University of Life Sciences ”King Michael I” from Timisoara, Faculty of Food Engineering, Calea Aradului 119, Timisoara, 300645, Romania

**Corresponding author: arianavelciov@usvt.ro*

Abstract: The present study explores the development of some biscuit varieties using almond flour as the main ingredient, along with oat flakes and bananas. The total contents of fats, proteins, carbohydrates, ash, moisture and energetic value were determined.

• Introduction

The aim of this study was to develop a variety of biscuits with improved nutritional value, using almonds, oats, and bananas. These ingredients contribute to the intake of dietary fiber, unsaturated fats, vitamins, and minerals. Bananas can provide natural sweetness to the product, reducing the need for added sugar.

The proposed product represents an alternative to traditional biscuits, aiming to combine nutritional benefits with sensory acceptability.

• Materials:







➢ Oat flakes

- Rich in dietary fibre, which supports digestion and helps maintain normal cholesterol levels
- Provide complex carbohydrates, proteins, vitamins, and minerals.

➢ Almond flour

- Contains healthy unsaturated fats, plant-based proteins, and vitamin E.
- Provides minerals, such as magnesium and calcium.

➢ Bananas

- allow us to prepare biscuits without added sugar.

• Methods:

The concentrations of nutritional parameters for biscuit samples were determined according to AOAC Official Methods of Analysis, 2000.

• Results and discussions

For the experimental part of the study, a comparative analysis was conducted to evaluate the nutritional values of biscuits prepared with almond flour, oat flakes and bananas and those of traditional butter biscuits. The results obtained are presented in Figure 1.

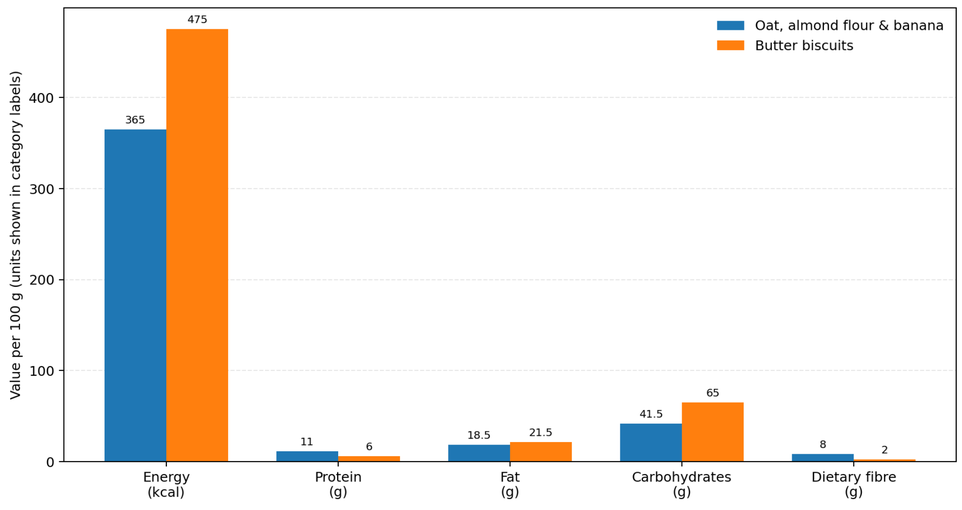


Fig. 1 Nutritional comparison between the analyzed samples

Conclusions

- Biscuits made with oat flakes, almond flour and bananas may represent a more nutritionally balanced alternative to traditional butter biscuits, mainly due to their higher dietary fiber and protein contents and their more favorable lipid profile.

